

APPENDIX

1. A corticoid 17,21-dicarboxylic ester or corticosteroid 17-carboxylic ester 21-carbonic ester of the formula I

21
$$CH_2$$
— O — C — $(O)_n$ — $[(C_1-C_4)$ — $A \mid k y \mid]_m$ — R (1)

CO

CO

CO

CO

R (3)

in which:

- A is CHOH and CHCl in arbitrary steric arrangement, CH₂, C=O or 9(11) double bond,
- Y is hydrogen, fluorine or chlorine,
- Z is hydrogen, fluorine or methyl,
- R(1) is unsubstituted phenyl or phenyl substituted by one to three substituents selected from the group consisting of methoxy, chlorine, fluorine, methyl, trifluoromethyl, acetamino, acetaminomethyl, t-butoxy, t-butyl, 3,4-methylenedioxy, BOC-amino, amino and dimethylamino,

(C₁-C₄)-alkyl is saturated, branched by further alkyl groups,

n is zero,

m is 1,

R(2) is linear or branched (C_1 - C_8)-alkyl, or $-CH_2$

R(3) is hydrogen or α - or β -methyl.

FINNEGAN, HENDERSON, FARABOW, GARRETT, & DUNNER, L. L. P. 1300 I STREET, N. W. WASHINGTON, D. C. 20005

202-408-4000



Application S r. No. 08/897,455 Attorn y Dock t No. 02481.1403-02

- 3. A process for preparing a compound I as claimed in claim 1, wherein
 - a) a compound of the formula II

in which R(5) is OH and the remaining substituents have the abovementioned meanings,

a1) is reacted with an activated carboxylic acid of the formula III, preferably a halide or anhydride or azolide,

$$R(6) -CO - (O)_n - [(C_1 - C_4) - alkyl]_m - R(1)$$

in which:

n is zero,

m is zero or 1, and

[(C_1 - C_4)-alkyl] and R(1) have the abovementioned meanings, and

R(6) is CI, Br, O[-CO-(O)_n-[(C₁-C₄)-alkyl]_m-R(1)]₁-,

-O-C(O)-CF₃, or another activated acid radical, or

a2) is reacted with a haloformate of the formula III,in whichn is 1,

FINNEGAN, HENDERSON, FARABOW, GARRETT, & DUNNER, L.L.P. 1300 I STREET, N. W. WASHINGTON, D. C. 20005



Application Ser. No. 08/897,455 Attorney Dock t No. 02481.1403-02

m is zero or 1, $[(C_1-C_4)\text{-alkyl}] \text{ and } R(1) \text{ have the abovementioned meanings and } R(6) \text{ is }$ is CI, Br or I, or

- is reacted with a carboxylic acid of the formula III itself, in which R(6) is OH, and n is zero,
 and the other substituents are given in formula III,
 in the presence of water-eliminating reagents (DCCI, etc.),
 or wherein
 - b) compounds of the formula II

in which R(5) is Br, I, or a sulfonic aryl ester group or sulfonic alkyl ester group, and the other substituents have the meaning given in formula I, are reacted with a salt, preferably a K or Na salt or a trialkylammonium salt, of a carboxylic acid of the formula III,

EAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, D. C. 20005
202-408-4000



Application S r. No. 08/897,455 Attorney Dock t No. 02481.1403-02

R(6) -CO- $(O)_n$ - $[(C_1-C_4)$ -alkyl]_m-R(1)

Ш

in which

R(6) is - $[0^{-}Me^{+}]$, and

n is zero,

and the other substituents have the meanings given in formula III, Me preferably being the cation of an alkali metal salt or of a trialkylammonium salt.

- 4. A pharmaceutical composition for treating dermatoses containing an effective amount of a compound of the formula I as claimed in claim 1, together with a pharmaceutically acceptable additive.
- 5. A method for treating dermatoses which comprises applying to skin in need of said treatment an effective amount of a compound of the formula I as claimed in claim 1, together with a pharmaceutically acceptable additive.
- 7. A corticoid 17,21-dicarboxylic ester or corticosteroid 17-carboxylic ester 21-carbonic ester of the formula I as claimed in claim 1, wherein R(1), A, Y, Z, and R(3) are defined as in claim 1, and wherein R(2) is ______.
- 8. A pharmaceutical composition as claimed in claim 4 for treating dermatoses which are inflammatory and allergic.
- 9. A corticoid 17,21-dicarboxylic ester or corticosteroid 17-carboxylic ester 21-carbonic ester of the formula I as claimed in claim 1, wherein A is CHOH, Y is hydrogen, Z is hydrogen, (C_1-C_4) -alkyl is C_1 -alkyl, R(1) is unsubstituted phenyl, R(2) is

 \rightarrow , and R(3) is hydrogen.

LAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L. L. P.
1300 I STREET, N. W.
WASHINGTON, D. C. 20005
202-408-4000



Application S r. No. 08/897,455 Attorn y Dock t No. 02481.1403-02

10. A corticoid 17,21-dicarboxylic ester or corticosteroid 17-carboxylic ester 21-
carbonic ester of the formula I as claimed in claim 1, wherein A is CHOH, Y is
fluorine, Z is hydrogen, (C_1-C_4) -alkyl is C_1 -alkyl, $R(1)$ is unsubstituted phenyl, $R(2)$ is
\longrightarrow , and R(3) is β-methyl.

EAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N.W.
WASHINGTON, D.C.20005
202-408-4000